

Day and Night

As part of this unit of work, schedule a trip to a local planetarium to provide students with more information about day and night.

Daytime and Nighttime

Introduce young children to the concepts of day and night by providing opportunities to explore the differences between daytime and nighttime, and discussing in simple terms the reasons it is light during the day and dark at night.

Ask children to share their thoughts on how the sky looks different during the daytime and nighttime. Discuss how the Sun is seen during the day, as well as clouds and a typically blue sky, and how, at night, the Moon and stars are often seen and the sky looks black.

Activity

Give each child the chance to create their own night and day sky by giving them two sheets of construction paper, blue for the day sky and black for the night sky, and having them illustrate each paper to reflect the daytime and nighttime sky.

Explain to children that there are different activities we do during the day and at night to help them differentiate between the two. Discuss how they come to school during the day and go to bed at night, and invite students to share their own ideas. Talk about how they know it is daytime or nighttime by looking at the sky.

Activity

Provide students with the opportunity to write or draw about an activity they only do during the day and one they only do at night. Encourage students to share their ideas with the rest of the class.

Activity

Read aloud to children books that encourage discussion and develop their understanding of day and night. Prepare two sheets of chart paper, one with the heading 'Daytime' and the other with the heading 'Nighttime'. Encourage children to describe how daytime looks compared to nighttime and the things they can do that

are unique to either daytime or nighttime. Record their responses on the appropriate chart. Ask open-ended questions such as, 'Why does nighttime look different to daytime?' or, 'Where do the Sun and Moon go when we can't see them?' Record the responses.

Activity

Cover a sunny windowsill with black construction paper. Invite children to find small objects in the classroom or outdoors and to place their objects on the black paper. Explain they will leave the objects on the paper for one week. At the end of the week, ask children to remove their objects and to explain what happened to the paper.

As the Earth Spins

Objectives

Students will:

1. Understand that the Earth rotates, or spins, on its axis in a cyclical fashion.
2. Understand how day and night occur as a result of the Earth's rotation.
3. Define and identify sunrise, day, noon, sunset and night as the Earth spins.

Questioning

- Start by investigating what children already know about day/night rotation with a KWL chart.
- You may want to model for your students how to ask questions. A list of question-words (who, what, when, where, why, how) may be a helpful language prompt in the classroom to encourage inquiry.
- Chart everything that students know about day and night in the first column, and what they want to know about day and night in the second column.
- Write important vocabulary (sunrise, day, noon, sunset and night) on the board as students encounter them in reading and discussion.
- Review questions on the KWL chart and ask if anyone can answer some of the questions now.
- Tell children they will soon be playing or taking on the role of the Earth to learn more about day and night.

Kinesthetic Models

Activity

- Have students stand around a sun lamp. Explain to them that each of them represents the Earth as it is rotating. Some of them will be in the sun and some will be in the dark. Have students rotate around the lamp and point out those who are experiencing the equivalent of sunrise, sunset, day and night.
- This demonstration also shows children how daytime and nighttime work across the globe. Use a circular globe and place a sticker where you are on the globe. Shine a sun lamp on that spot and begin to spin the globe slowly, showing how, as it gets darker where the sticker is, it gets lighter on other areas.
- Return to the KWL chart, review students' questions and place any new answers in the final column, 'What We Learned'. If there are still unanswered questions, decide with the class how you will research them further.
- Download the *Day and Night* blackline master from the Teacher Toolkit for students to complete.

Moon and Stars

Activity

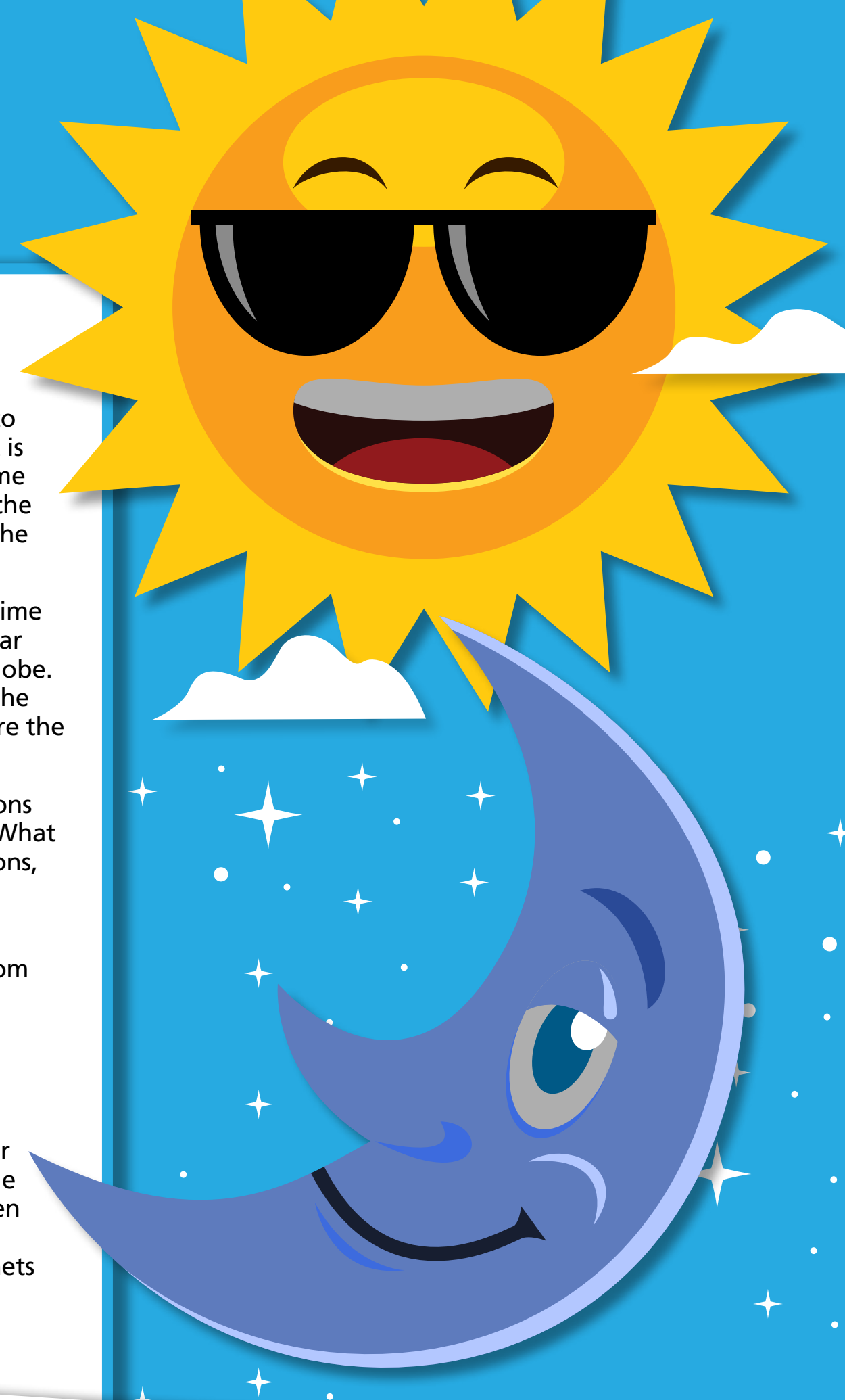
Have children keep a class Moon book. Each night for a month, a different child takes the Moon book home and draws what the Moon looks like that night. When the book is complete, discuss the different phases of the Moon. Students could also draw the stars or planets they can see surrounding the Moon and then discuss constellations and galaxies as a class.

Resources available in the 2012 School Essentials catalogue

- *Science Through the Year*, page 154
- *Early Years Themes: Science*, page 154
- *Glow-in-the-Dark Solar System*, page 174
- *Inflatable Labelling Globe*, page 175
- *Giant Magnetic Solar System*, page 175
- *Seasons Down Under and Everywhere*, page 200
- *Building the Day Interactive*, page 316

FREE Teacher Toolkit Resources available at www.scholastic.co.nz/schools/bookclub

- *Day and Night* blackline master
- *Graphic Organiser: KWL Chart* blackline master
- *Our Amazing Sun* blackline master
- *Phases of the Moon* blackline master
- *Space Memory Game* blackline master



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